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Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals

Sub-Committee of Experts on the Globally Harmonized System of Classification and Labelling of Chemicals

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Hazard communication issues: Miscellaneous

GHS labels in transport on combination packagings containing multiple goods not subject to Transport of Dangerous Goods regulations

Transmitted by the Dangerous Goods Advisory Council[1]

Introduction

1. A current topic of concern amongst industry is the GHS labelling of packages of mixed products not subject to the regulations for the Transport of Dangerous Goods (TDG). Example 3 in Annex 7 of the GHS, states: "Some competent authorities may require a GHS label on the outer packaging in the absence of a transport label." While GHS labelling of the immediate containment is a basic requirement, the replication of multiple labels on transport packages is, in some scenarios, impractical and may reduce safety due to the incomprehensibility of multiple labels being present simultaneously. DGAC requests that the Sub-Committee consider this issue during the current biennium to aid in its resolution, perhaps in a working group discussion in addition to the plenary discussion.

Discussion

2. The GHS is silent on which elements or layers of packaging should be labelled. Packaging terms are not defined in Chapter 1.2 of the GHS. The following terms are

[1] In accordance with the programme of work of the Sub-Committee for 2015-2016 approved by the Committee at its seventh session (refer to ST/SG/AC.10/C.4/56, annex III and ST/SG/AC.10/42, para. 15).

defined in Chapter 1.2 of the TDG regulations and may be of use: package, packaging, inner packaging, intermediate packaging, outer packaging, combination packaging, and overpack. The terms single packaging and composite packaging, e.g. drums, are excluded from this proposal, as mixed packages are not applicable.

3. Packaging is the means used to contain a product, whether singly or in combination. A package is a packaging that contains product, regardless of whether or not the product is subject to transport regulations. An inner packaging immediately contains the product, as a component of a combination package, but may not be used by itself in transport. An outer packaging is the minimum layer allowed for use in transport to protect an inner package. Inner packaging(s) in an outer packaging, together with any intermediate packaging, form a combination packaging, which is the focus of this discussion. Combination packages may be overpacked for transport or materials handling, e.g. a stretch-wrapped pallet. Overpacks also include the placement of one or more combination packages inside another packaging. This method is frequently used for efficiency in small parcel shipments.

4. Labelling is applied according to GHS on inner packagings, i.e. the packaging immediately containing the product, e.g. a bottle. Depending on the jurisdiction, the same may be true for intermediate packaging, e.g. a sleeve used to bundle multiple inners into a multi-pack. Manufacturers and formulators must incorporate GHS labelling into their processes, including bundling different products together as a multi-pack. In this case, appropriate GHS warnings may be determined and coordinated in advance of shipments, and are not the primary focus of this proposal.

5. Significant difficulty arises in scenarios for samples and where pick-pack operations or distributors re-pack different product inner packages together in an outer package. These combinations are based on customer orders, and the number of possible shipping combinations is infinite and unplanned. In pick-pack operations, orders are typically filled on high speed, high volume automated lines within a manner of minutes from start to finish. Orders are often palletized and shipped on the same day the order is received. Also, upon customer receipt, the transport outer packaging is often immediately opened and discarded. In some scenarios such as samples, the number of different products involved may exceed one hundred. This results in significant challenges, which are:

(a) Computerization of real-time labelling for these complex possibilities is not feasible. Manual reproduction of labels would be difficult.

(b) Depending on the number of different products, replication of individual labels on the outer packaging may not be possible, due to the quantity of unique labels that would have to be applied versus the available area of blank box exterior.

(c) Even if numerous GHS labels are applied to an outer package, safety may be reduced due to the confusing array of different warning labels on the exterior of the box.

6. The use of GHS labels on outer packagings suitable should be considered in the context of what is required for higher tier hazards governed by the TDG regulations. When a dangerous good is present, GHS labelling does not apply to the outer packaging of a combination package. We wonder what justification there is for requiring GHS labelling for lower hazard goods not subject to the TDG Model Regulations.

7. According to the TDG Model Regulations, dangerous goods are classified into one of nine classes. Safety marks and labels describing the hazards of the product are normally required. The label(s) must consist of a pictogram(s) (symbols in GHS) and include the class or division number of the product. Marks generally consist of the proper shipping name and UN number identifying the product.

8. However, for goods which have mitigating factors of (a) being in the lower tier hazards of dangerous goods, and (b) which are also in small packagings up to 5 L or 5 kg, the aforementioned package labelling and marking requirements are waived. TDG regulations confirmed this allowance after analysing the risk presented in small volume shipments of low hazard dangerous goods and coming to the conclusion that the risk was minimal. Normal shipping documentation is also waived for transport by road and rail.

9. This system of exceptions based on low hazard and small packages is called "Limited Quantities" (LQ). The only package marking required is a pictogram which conveys that LQ products are present. No specific information as to the type of hazards is communicated, nor is there any guidance for storage or other precautionary statements. GHS labelling still applies to the inner packagings so that upon opening the transport outer packaging full warnings are available for supply and use.

10. LQ is of crucial importance for the distribution of household chemicals, and the number and volume of products distributed is high. Similar products pose still lesser risk if they fall below the criteria for Packing Group III. When this happens, they are no longer regulated under TDG regulations, but may still be regulated by GHS for health or environmental hazards. If GHS labelling is required on transport packaging for products not regulated by TDG, the hazard communication requirements for the lower hazard products will be far greater than for the higher hazard LQ products. Relaxations in transport requirements for lower tier hazards exist to avoid creating a culture of non-compliance and soft enforcement which can have a detrimental effect on safety for products of higher hazards.

11. It may be helpful to consider some estimated shipping volumes to obtain a sense of the impact of labelling requirements for mixed packages. According to a recent trade publication (http://www.retailresearch.org/onlineretailing.php), e-commerce orders in 8 European Union (EU) countries reached €156.28 bn in 2014, with a +18% growth anticipate for 2015. The average order size is only €50.00 (http://www.eulogisticshub.com/blog/2014/07/supply-chain-is-important-capability-for-ecommerce-companies/), so the number of cartons in our example is 3.12 billion. Using proprietary estimates of shipments from our members it is possible to determine percentages of GHS-only, TDG and non-hazardous products. This allows us to qualitatively estimate data as follows:

Estimated Breakdown of 3.12 Billion E-Commerce Packages in 8 EU Countries

	Containing GHS but no TDG products	Containing TDG (with or without GHS-only products)	Containing neither GHS or TDG products
GHS label required on outer packaging	Yes	No	No
Number of cartons in 8 EU countries	17.9 Billion Cartons	62.5 Billion	75.8 Billion
Percent of cartons	11.50%	40%	48.50%

Summary

12. Factories are able to implement GHS labelling on their packages, and the concerns in this discussion are raised when downstream suppliers mix products into different transport packages. Some consideration should be given within the GHS to facilitate this practical need at the nexus of distribution and supply and use.

Proposal

13. It is recommended that the Sub-Committee address whether an exception from GHS labelling during transport and related storage would benefit the practical implementation of the GHS.

14. This work is already under consideration in certain regions, but it is DGAC's recommendation that this work be undertaken at the Sub-Committee level to ensure a globally harmonized approach and prevent unnecessary impacts to commerce.